REMARKS/ARGUMENTS

Claims 1-20 are pending in the present application. Claims 1 and 9 are amended. The amendment to claim 9 corrects a clearly typographical error. Support for the amendment to claim 9 can be found at page 10, line 16 through page 11, line 6, in Figure 9, and in other locations in the specification. Reconsideration of the claims is respectfully requested.

I.   35 U.S.C. § 101

The examiner rejected claims 9-12 as directed towards non-statutory subject matter. The examiner states that:

> Claims 9-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It appears that the independent claim 9 does not produce a tangible result, as there is no specific limitation in the body of the method claim regarding what to do after obtaining a baud rate based on the amount of time. Dependent claims 10-12 are rejected because of direct dependency on the independent claim 9, and further more, each of the dependent claims does not appear to have claimed limitation that produce the required tangible result.

Office Action dated June 21, 2006, p. 2.

Applicants have amended claim 9 to specify the feature of, "setting a second baud rate for the serial port based on the first baud rate." This feature produces a tangible result. Claims 10-12 are also definite at least by virtue of their dependency on claim 9. Therefore, the rejection under 35 U.S.C. § 101 is overcome.

II.   35 U.S.C. § 112, Second Paragraph

The examiner rejected claims 9-12 under 35 U.S.C. §112, second paragraph, as indefinite. This rejection is respectfully traversed. The examiner states that:

> As per claim 9, it appears unclear if the preamble recited by the applicant regarding the "initialization of a storage controller" is an intended use or a positive limitation for the claimed method. examiner will assume that the "initialization of a storage controller" in the preamble is the intended use the claimed method.

> As per claims 10-12, claims 10-12 are rejected due to direct dependency on the independent claim 9.

Office Action dated June 21, 2006, pp. 2-3.

Claim 9 as amended is as follows:

> 9.   (Currently Amended)   A method of performing an adaptive baud rate negotiation for serial port initialization in a storage controller, wherein the storage controller includes a serial port for connection to an external device, the method comprising:

> sending a break key sequence from the external device to the storage controller;
>> determining an amount of time between a start bit and a stop bit;
>> obtaining a first baud rate based on the amount of time; and
> setting a second baud rate for the serial port based on the first baud rate.

Claim 9 is definite because the preamble clearly identifies the claimed method. Specifically, the preamble provides for, "a method of performing an adaptive baud rate negotiation for serial port initialization in a storage controller." Different emphasis is provided to show each prepositional phrase. The emphasized prepositional phrases are connected to the noun phrase, "a method," using understandable English prepositions that unambiguously identify how those prepositional phrases connect to each other and to the noun phrase. As a result, the preamble conveys the meaning that the method of performing an adaptive baud rate negotiation is for serial port initialization and that the serial port initialization is performed in a storage controller. One of ordinary skill would unambiguously understand the claimed phrase.

For these reasons, the preamble is definite. The issue of whether the preamble forms a positive limitation is a separate and distinct issue irrelevant to the definiteness inquiry.

The examiner does not assert that the remaining elements of claim 9 are indefinite. Given that the preamble to claim 9 is definite, claim 9 as a whole is definite. Accordingly, dependent claims 10-12 are also definite. Therefore the rejection of claims 9-12 under 35 U.S.C. § 112, second paragraph has been overcome.

III.   35 U.S.C. § 103, Obviousness
III.A.   Claims 1, 3, 5, 13, 15, and 17

The examiner rejected claims 1, 3, 5, 13, 15, and 17 as obvious over Applicant's Admit Prior Art (hereinafter "AAPA") in view of Wood et al., System for Selectively Controlling Spin-Up Control for Data Storage Devices in an Array Using Predetermined Out of Band (OOB) Signals, U.S. Patent 6,915,363 (July 5, 2005) (hereinafter "Wood"). This rejection is respectfully traversed. The examiner states that:

> As per claims 1 and 13, AAPA teach a storage network system and method, comprising:
>
> a storage system (disk subsystem) (Specification, page 2, ll. 9-10);
>
> a storage controller (disk/RAID controller), wherein the storage controller provides access to the storage system (storage system comprising of two or more hard disks) (Specification, page 2, ll. 10-12) and wherein the storage controller has a serial port (Specification, page 2, ll. 14-15); and
>
> an external device, electrically coupled to the storage controller through the serial port (Specification, page 2, ll. 14-15),

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wherein the storage controller have a plurality serial port parameter settings including baud rate, data bits, stop bits, priority and flow control (Specification, page 2, ll. 17-18).

AAPA does not teach the storage network system and method, comprising wherein the storage controller receives at least one serial port parameter value for a set of serial port parameters, wherein the at least one serial port parameter is selectable by an operator; and initializes the serial port on the storage controller using the received serial port parameter values.

Wood teaches a system and a method comprising a subsystem controller (Fig. 3, ref. 314) providing access to a storage system comprising a plurality of disk drives (Fig. 3, ref. 330, 338, 342, 346, 350, 354) over a serial connection (conforming to the serial ATA standard), wherein a host computer (Fig. 3, ref. 302) selects and sends a start command and when the subsystem controller receives the start command, the port controller (Fig. 3, ref. 324, 326) is activated utilizing the art command (col. 6, ll. 35-59 and col. 9, ll. 14-35).

It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Wood's start command into AAPA's plurality of serial port parameter settings. The resulting combination of the references teaches the storage network system and method further comprising wherein the plurality of serial port parameter settings including start command, baud rate, data bits, stop bits, priority and flow control; the host (operator) selecting and sending the start command; and the subsystem controller receives and utilizes the start command to activate (initialize) the port controller, wherein the port controller operates in accordance to the serial ATA standard, therefore the port controller is a serial port controller.

Therefore, it would have been obvious to combine Wood with AAPA for the benefit of proper communication between the host and the peripheral utilizing out-of-band (OOB) signaling, and further more, providing greater control in initializing the inexpensive array of ATA disk drives (Wood, Abstract and col. 2, ll. 51-59).

Office Action dated June 21, 2006, pp. 3-5.

The examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). For an invention to be *prima facie* obvious, the prior art must teach or suggest all claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In the case at hand, the cited reference does not teach or suggest all of the limitations of the claims, arranged as they are in the claims.

Claim 1 as amended is as follows:

> 1.   (Original)   A method for serial port initialization in a storage controller, wherein the storage controller includes a serial port for connection to an external device, the method comprising:
>   receiving at least one serial port parameter value for a set of serial port parameters, wherein the at least one serial port parameter is selectable by an operator; and
>   initializing a serial port on the storage controller using the received serial port parameter values.

III.A.1 The Proposed Combination of References Does Not Teach All of the Features of the Claims

Regarding claim 1, the proposed combination of *AAPA* and *Wood*, when considered together as a whole, does not teach or suggest the claimed feature that "the at least serial port parameter is selectable *by an operator*." Additionally, the proposed combination, *when considered as a whole*, does not teach or suggest "initializing a serial port," as claimed. The examiner's assertions to the contrary are mistaken.

The examiner admits, and Applicants agree that *AAPA* does not teach this claimed feature. By implication, the examiner admits that *AAPA* does not suggest this claimed feature. Nevertheless, the examiner cites *Wood* as teaching this claimed feature. In particular, the examiner asserts that host 302 shown in figure 3 of *Wood* is the claimed operator. However, host 302 is not an "operator" as claimed; instead, host 302 is a computer. The plain text of figure 3 of *Wood* proves this fact, as host 302 is identified as "host *computer(s)*":
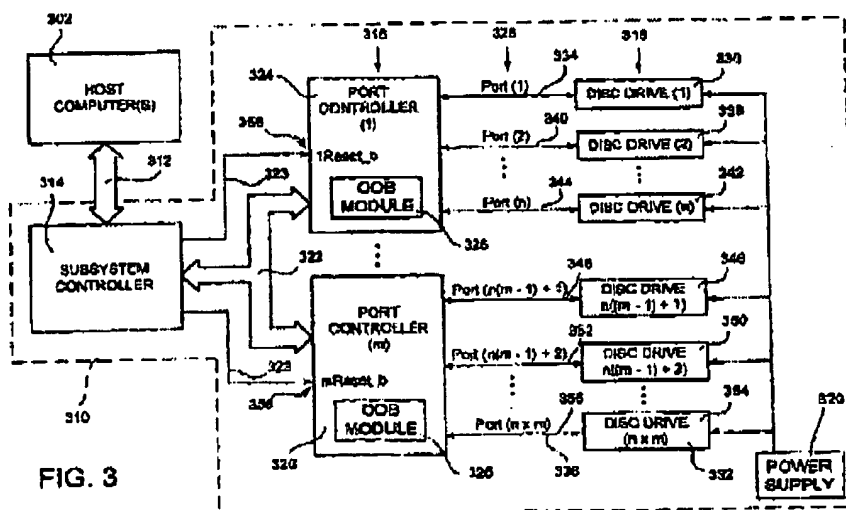

FIG. 3

In contrast, the claimed operator is a user, not a computer. For example, the specification describes an operator as follows, "An operator may connect an external device to the serial port of a RAID controller for maintenance, monitoring, or configuration." Specification, p. 2, ll. 15-17. Users connect external devices to controllers, not computers. Additionally, the specification provides that, "The serial console mode allows an operator to set serial port parameter values. After the user selects the serial port parameters, when the controller continues with the boot process, the serial port is initialized with the newly selected parameters." Specification, p. 4, ll. 6-8. These two sentences together clearly state that the operator is a user, because both the operator and the user select the serial port parameters. Additionally, the specification provides that, "An operator may set serial port parameters using a boot operations menu or through interface software at a host computer." Specification, p. 11, ll. 8-10. Thus, the specification specifically provides that the operator sets the serial port parameters, as claimed.

Although the claims are read in the broadest possible manner, the claims are also interpreted in light of the specification. As proved above, the specification clearly identifies that the claimed operator is a user. A user is not equivalent to a host computer, as shown in *Wood*. Therefore, the examiner's reliance on *Wood* to show the claimed "operator" performing the claimed steps is misplaced and incorrect. Furthermore, *Wood* does not teach this claimed feature. Additionally, *Wood* provides no indication that a user can perform the claimed functions. Therefore, *Wood* does not suggest this claimed feature.

Hence, *Wood* does not teach or suggest the claimed feature that "the at least serial port parameter is selectable *by an operator*." As admitted by the examiner, *AAPA* does not teach or suggest this claimed feature. Because the individual references do not teach or suggest this claimed feature, the proposed combination of *Wood* and *AAPA*, when considered as a whole, does not teach or suggest this claimed feature. Accordingly, under the standards of *In re Royka*, the examiner has failed to state a *prima facie* obviousness rejection.

Additionally, the proposed combination, *when considered as a whole*, does not teach or suggest "initializing a serial port," as claimed. As shown further below, *Wood* teaches serial ATA connections for hard disk drives, which an entirely distinct connection type from serial port connections. Nevertheless, the examiner believes that activating the port controller 326 in *Wood* is equivalent to initializing a serial port, as claimed. *Wood* describes port controller 326 as follows:

> As shown in FIG. 3, the disc drive array 310 preferably includes two or more port controllers 316, shown as port controller (1) 324 through port controller (m) 326, each of which is operably connected 322 to the subsystem controller 314. The subsystem controller 314 may communicate with the port controllers 316 via the connections 322 using any number of interfaces, such as, without limitation: Serial ATA, ATA/IDE, SCSI, USB, IEEE-1394 (Firewire), Fiber Channel, etc.

Wood, col. 5, l. 66 through col. 6, l. 10.

As shown further below, a serial ATA connection is not a serial port. None of the interfaces that *Wood* describes are serial ports.

The examiner relies on *AAPA* to describe serial ports. The examiner relies on *Wood* to initialize the claimed serial port in the claimed manner. However, as shown above, *Wood* provides no disclosure that actually would allow one to initialize the claimed serial port. Therefore, when the references are considered *as a whole* the combination of *Wood* and AAP does not disclose initializing a serial port, as recited in claim 1. Accordingly, the proposed combination of *Wood* and AAP when considered as a whole does not teach or suggest all of the features of claim 1. For this reason, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.A.2 One of Ordinary Skill Could Not Combine the References

In addition, the examiner has failed to state a *prima facie* obviousness rejection because no teaching, suggestion, or motivation exists to combine the references. No teaching, suggestion, or motivation exists to combine the references because, among other reasons, one of ordinary skill could not technically implement the proposed combination.

The examiner appears to believe that one of ordinary skill could combine the feature of a serial port, as taught in *AAPA*, with an ATA serial connection for a hard disk drive, as taught in *Wood*. The examiner further appears to believe that one of ordinary skill would find combining these features to achieve the claimed invention obvious because the resulting combination would result in the purported benefit.

However, the examiner appears to ignore the stark technical difference between serial ports and ATA serial connections. Applicants invite the examiner to review the following websites computer.howstuffworks.com/serial-port1.htm and en.wikipedia.org/wiki/Serial_ATA for further information on these types of devices.

Serial ports, also called communication (COM) ports, are bi-directional communication ports. Bi-directional communication allows each device to receive data as well as transmit it. Serial ports use different pins to receive and transmit data. The name "serial" is derived from the fact that a serial port "serializes" data. Data is serialized when data is transmitted one byte at a time. The advantage to serial communications is that a serial port needs only one wire to transmit the bits. The disadvantage to serial communications with a serial port is that eight times more time is needed to transmit the data than if eight wires were present. Serial ports lower cable costs and make cables smaller. Serial ports rely on a special controller chip, the Universal Asynchronous Receiver/Transmitter (UART), to function properly.

In contrast, a serial ATA connection is an entirely different type of connection. In computer hardware, Serial ATA (SATA) is a computer bus technology primarily designed for transfer of data to and from a hard disk. Physically, SATA power and data cables are radically different than cables that connect serial ports. The SATA standard defines a data cable using seven conductors and 8 mm wide

wafer connectors on each end. Additionally, SATA connectors are keyed such that one can not install cable connectors upside down without considerable force. The backward compatibility of SATA hard disks is virtually non-existent in the sense that SATA drives will not work with the same connectors to which PATA, SCSI, or any other format of hard drive connectors connect.

Thus, the only similarity between the claimed "serial port" and the "serial ATA connection" shown in *Wood* is that both use a serial-type of communication. Otherwise, the two devices are radically different. *Wood* provides no indication that *Wood's* method can be implemented using a serial port. In fact, because the claimed serial port and the serial ATA connections disclosed in *Wood* are so radically different, one of ordinary skill could not combine *AAPA* with *Wood* to achieve the invention of claim 1. Therefore, no teaching, suggestion, or motivation exists to combine the references to achieve the invention of claim 1. Accordingly, the examiner failed to state a *prima facie* obviousness rejection against claim 1.

III.A.3 *Wood* Teaches Away from the Claimed Inventions

In addition, *Wood* directly teaches away from the invention of claim 1. As shown above, *Wood* teaches serial ATA connections for hard disk drives but provides no teachings regarding connecting serial ports to hard disk drives. In view of the fact that serial port connections are slower than serial ATA connections, one of ordinary skill in the art would be motivated to *avoid* combining the references. Therefore, again, no teaching, suggestion, or motivation exists to combine the references. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.A.4 No Teaching, Suggestion, or Motivation Exists Because the References Address Different Problems

One of ordinary skill would not combine the references to achieve the invention of claim 1 because the references are directed towards different subject matter. It is necessary to consider the reality of the circumstances--in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992); *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (CCPA 1979). In the case at hand, the cited references address different subject matter. Thus, no common sense reason exists to establish that one of ordinary skill would reasonably be expected to look to *Wood* for a solution to the problem described in *AAPA*. Accordingly, no teaching, suggestion, or motivation exists to combine the references and the examiner has failed to state a *prima facie* obviousness rejection of claim 1.

For example, *AAPA* is directed to serial port initialization. For example, the specification provides that:

> Serial port initialization on RAID controllers poses many problems as port parameters are typically set by invoking a <BREAK> key sequence on the serial console. By repeating the break sequence, a user may cycle through baud rate values for the serial port. However, the user may not know how many times the break sequence was invoked and, thus, may not know what baud rate is set. The user may also miss the intended value and must restart the break key sequence. This solution for setting serial port parameters is non-intuitive and potentially frustrating.

Specification, p. 2, l. 28 through p. 3, l. 5.

On the other hand, *Wood* is directed to the problem of speeding up spin-up of disk drives. For example, *Wood* provides as follows:

> In contrast to SCSI disc drives, spin-up in typical parallel-ATA disc drives and typical serial-ATA disc drives is not controlled by commands received from a host computer or array controller. In typical parallel-ATA disc drives a scheme may be employed wherein when two parallel-ATA disc drives are used on the same ATA channel as master and slave, the spin-up of the slave drive is delayed by several seconds from the spin-up time of the master drive. Unfortunately, as a typical parallel-ATA channel may only accommodate a single pair of master/slave devices, the spin-up of only one disc drive per parallel-ATA channel may be delayed in this manner. Present serial-ATA disc drives do not include any mechanisms for staggering or sequencing the spin-up of a plurality of disc drives. In particular, there is currently no master-slave relationship in the point-to-point topology of serial-ATA interfaces.
> SCSI disc drives have typically been preferred over ATA disc drives in arrays having a large number of disc drives. Part of the reason for this preference relates to the better spin-up time control that they provide. Unfortunately, SCSI disc drives are typically much more expensive that ATA disc drives. As such, there is a need for systems and/or methods that provided a greater control of spin-up times of ATA disc drives, so that inexpensive arrays of ATA disc drives may be more effectively used in multi-drive arrays.

Wood, col. 2, ll. 35-59.

Based on the plain disclosures of the references themselves, the references address completely distinct subject matter. Serial port initialization is completely distinct from the problem of speeding up spin-up of disk drives.

Because the references address completely distinct subject matter, one of ordinary skill would have no reason to combine or otherwise modify the references to achieve the invention of claim 1. Thus, no proper teaching, suggestion, or motivation exists to combine the references in the manner suggested by the examiner. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1 or any other claim in this grouping of claims.

III.A.5. The examiner Has Not Stated a Proper Teaching, Suggestion or Motivation to Combine the References

In addition, the examiner has failed to state a *prima facie* obviousness rejection against claim 1 because the examiner has not stated a proper teaching, suggestion, or motivation to combine the references. Instead, the examiner has only stated a proposed advantage to combining the references. However, an advantage is not necessarily a teaching, suggestion, or motivation.

To constitute a proper teaching, suggestion, or motivation, the examiner must establish that one of ordinary skill would both recognize the advantage and have a reason to implement the advantage. For example, a first reference may disclose the use of lasers to achieve nuclear fusion. A second reference may disclose that ultra-high power lasers deliver more energy. One of ordinary skill may recognize that an ultra-high power laser would be more useful to achieve nuclear fusion. However, one of ordinary skill would be motivated to avoid combining the references because of the extreme expense of ultra-high power lasers. In this example, one of ordinary skill is motivated to avoid implementing the combination, even if he or she recognized the advantage. Therefore, in this example, so no teaching, suggestion, or motivation exists to combine the references.

In the case at hand, the examiner has not provided a sufficient reason why one of ordinary skill would recognize the proposed advantage or have a reason to implement it. The examiner states that "it would have been obvious to combine *Wood* with *AAPA* for the benefit of proper communication between the host and the peripheral utilizing out-of-Band (OOB) signaling, and further more, providing greater control in initializing the inexpensive array of ATA disk drives." Office Action of June 21, 2006, p. 5 (emphasis in original). However, the proposed teaching, suggestion, or motivation does not actually exist because, as shown above, one of ordinary skill could not technically combine the references. Even if one of ordinary skill could technically combine the references, *Wood* still teaches away from the claimed invention. Thus, the examiner's proposed teaching, suggestion, or motivation is false. For these reasons, the examiner's statement fails to provide a proper teaching, suggestion, or motivation to combine the references. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.A.6. The examiner Used Impermissible Hindsight When Fashioning the Rejection

In addition, the examiner's has failed to state a *prima facie* obviousness rejection against claim 1 because the examiner used impermissible hindsight when fashioning the rejection. Personal opinion cannot be substituted for what the prior art teaches because a *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993).

In this case, the references address starkly different subject matter, as shown above. Additionally, the references do not teach what the examiner asserts the references to teach. In further light that the references could not have been combined by one of ordinary skill to achieve the invention of claim 1, the examiner could only have fashioned the rejections by using the examiner's personal opinion rather than by using the actual teachings of known prior art. Therefore, the examiner must have used impermissible hindsight when fashioning the rejection of claim 1.

Moreover, based on the plain disclosures in the references, the only suggestion to combine the references is found in Applicants' specification. The examiner's citation to *Wood* is clearly inappropriate given that the citation only refers to SATA connections and not to serial ports. Hence, the examiner must have used Applicants' specification to find a teaching, suggestion, or motivation to combine the references. Combining the references in this manner constitutes impermissible hindsight and fails to comport with the standards of *Graham v. John Deere Co.*, 383 U.S. 1 (1966), which requires a proper teaching, suggestion, or motivation to combine or modify references to achieve a proper obviousness rejection. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.A.7. The examiner Has Failed to State a *Prima facie* Obviousness Rejection Because *Wood* Is Non-Analogous Art.

The examiner has failed to state a *prima facie* obviousness rejection because *Wood* is non-analogous art. In order to rely on a *Wood* as a basis for rejection, the *Wood* must be either in the applicant's field of endeavor or, if not, then reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 24 U.S.P.Q.2d 1443, 1445 (Fed. Cir. 1992); *In re Deminski*, 796 F.2d 436, 442, 230 U.S.P.Q. 313, 315 (Fed. Cir. 1986).

In the case at hand *Wood* is not in the same field of endeavor of claim 1 and *Wood* is not reasonably pertinent to the particular problem with which Applicants were concerned. With regard to the first part of the test for analogous art, *Wood* is not in the same field of endeavor of claim 1 because *Wood* is in the field of increasing the speed of hard disk drives. In contrast, claim 1 is in the field of serial port initialization. The two fields are wholly distinct from each other because serial port initialization is wholly distinct from the speed of hard disk drives. Thus, *Wood* fails the first test of *In re Oetiker*.

With regard to the second part of the test for analogous art, *Wood* is not reasonably pertinent to the particular problem with which Applicants were concerned. As established above, *Wood* is in the field of speeding up hard disk drives.

In contrast, claim 1 is directed to serial port initialization. The problem addressed by *Wood* is wholly distinct form the problem addressed by claim 1. For this reason, *Wood* is not reasonably

pertinent to the particular problem with which Applicants were concerned. Therefore, *Wood* fails the second part of the *In re Oetiker* test for analogous art.

As established above, *Wood* fails both tests for analogous art set forth by *In re Oetiker*. Therefore, *Wood* is non-analogous art. For this reason, the examiner can not use *Wood* when fashioning an obviousness rejection against claims 1. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 1.

III.B.   Claims 2 and 14

The examiner rejected claims 2 and 14 as obvious over *AAPA* and *Wood* in further view of *Farrand* et al., Graphical User Interface for Computer Management System and an Associated Management Information Base, U.S. Patent 5,559,958 (September 24, 1996) (hereinafter "*Farrand*"). This rejection is respectfully traversed. The examiner states that:

> Claims 2 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Wood et al. (PS Patent 6,915,363), and further in view of Farrand et al. (US Patent 5,559,958).

> AAPA and Wood teach all the limitation of claims 1 and 13 as discussed above, wherein Wood further teaches the storage network system and method, comprising a plurality of mode of communication options including communication conforming to serial ATA, USB, Firewire and Fiber Channel (Wood col. 6, ll. 15-18 and col. 7, ll. 17- 19)

> AAPA and Wood does not expressly teach the storage network system and method, comprising: wherein the storage controller receives the at least one serial port parameter value by presenting a boot menu, wherein t boot menu includes a serial console mode, receiving a user selection of a serial console mode, presenting the serial console mode, and receiving operator selection of the at least one serial port parameter value in the serial console mode.

> Farrand teaches a graphic user interface (GUI) for computer management system and method comprising:

> displaying to a user a file server menu, wherein the file server menu includes a engineering server subsystem (Fig. 10);

> receiving a user selection of the engineering server subsystem (Fig. 10-11);

> presenting the engineering server subsystem (Fig. 11);

> receiving the user selectively depressing one of the engineering server subsystem button comprising a configuration subsystem button (Fig. 11, ref. 516), an input/output subsystem button (Fig. 11, ref. 528), a disk storage subsystem button (Fig. 2111, ref. 520) and a security configuration subsystem button (Fig. 11, ref. 518) (Fig. 11 and col. 197, ll. 1-14).

> It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Farrand's GUI menu into AAPA and Wood's storage network system and method. The resulting combination of the references teaches the storage network system and method further comprising:

displaying to the user an initialization menu, wherein the initialization menu includes the serial ATA communication mode;

receiving the user selection of the serial ATA communication mode;

presenting the serial ATA communication mode, wherein the serial ATA communication mode comprises the plurality of serial port parameter settings including start command, baud rate, data bits, stop bits, priority and flow control; and

receiving the user selecting of at least one serial port parameter value in the serial communication mode comprising the start command.

Therefore, it would have been obvious to combine Farrand with AAPA and Wood for the benefit of providing a GUI interface which enable the user/operator to easily select the available options/functions rather than requiring complex typing of commands to implement the desire functionalities.

Office Action dated June 21, 2006, pp. 5-7.

The examiner has failed to state a *prima facie* obviousness rejection against claims 2 and 14 because the rejection relies on the combination of *AAPA* and *Wood*. As established with regards to the response to the rejection of claim 1, the examiner cannot state a *prima facie* obviousness rejection against claim 1 and 13. Furthermore, *Farrand* does not teach or suggest the features of claim 1. Therefore, the examiner can not state a *prima facie* obviousness rejection against claims 2 and 14, at least by virtue of their dependence on claims 1 and 13, respectively.

III.B.1. The Proposed Combination of References Does Not Teach All of the Features of the Claims

Additionally, the examiner has failed to state a *prima facie* obviousness rejection because the proposed combination of references, when considered as a whole, does not teach or suggest all of the features of claims 2 and 14. Claim 2 is as follows:

2.   The method of claim 1, wherein receiving at least one serial port parameter value includes:
          presenting a boot menu, wherein the boot menu includes a serial console mode;
          receiving a user selection of a serial console mode;
          presenting the serial console mode; and
          receiving operator selection of at least one serial port parameter value in the serial console mode.

The proposed combination, when considered as a whole, does not teach or suggest the claimed feature of "presenting a boot menu, wherein the boot menu includes a serial console mode," and, by implication, the other claimed features. As shown above, *AAPA* and *Wood* do not teach or suggest initializing a serial port, as claimed. Additionally, *Farrand* is devoid of disclosure in this regard.

Farrand teaches a graphical user interface (GUI) for a file server. Although voluminous in its disclosure, *Farrand* never teaches or suggests initializing a serial port using a GUI or any other method. The examiner fails to indicate otherwise. Instead, the examiner only refers to disclosure in *Farrand* that is directed to configuring a subsystem configuration button. In light of the fact that *Farrand* is devoid of specific disclosure regarding initializing serial ports, and in further light of the fact that *AAPA* and *Wood* are also devoid of this disclosure, none of the references teach or suggest all of the features of claim 2. Therefore, the proposed combination of *AAPA*, *Wood*, and *Farrand*, when considered as a whole, does not teach or suggest the feature of "presenting a boot menu, wherein the boot menu includes a serial console mode," as recited in claim 2. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 2 or similar claim 14.

III.B.2 No Teaching, Suggestion, or Motivation Exists Because the References Address Different Problems

One of ordinary skill would not combine the references to achieve the invention of claim 2 because the references are directed towards different subject matter. It is necessary to consider the reality of the circumstances--in other words, common sense--in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992); *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (CCPA 1979). In the case at hand, the cited references address different subject matter. Thus, no common sense reason exists to establish that one of ordinary skill would reasonably be expected to look to *Farrand* for a solution to the problems described in *Wood* and *AAPA*. Accordingly, no teaching, suggestion, or motivation exists to combine the references and the examiner has failed to state a *prima facie* obviousness rejection of claim 1.

As shown above, *AAPA* is directed to serial port initialization. On the other hand, *Wood* is directed to the problem of speeding up spin-up of disk drives. In further contrast, *Farrand* is directed to managing complex file servers. For example, *Farrand* provides that:

> The invention relates to a computer management system and, more particularly, to a computer management system having plural instrumentation agents for querying manageable devices to collect object data, an associated enterprise management information base (or "MIB") for storing object data in accordance with a specified MIB architecture and a graphical user interface (or "GUI") for managing the manageable devices using the enterprise MIB.

Farrand, col. 1, ll. 52-59.

Based on the plain disclosures of the references themselves, the references address completely distinct subject matter. Serial port initialization is completely distinct from the problem of speeding up spin-up of disk drives. In turn, both of these subjects are completely distinct from the problem of managing complex file servers.

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Because the references address completely distinct subject matter, one of ordinary skill would have no reason to combine or otherwise modify the references to achieve the invention of claim 2. Thus, no proper teaching, suggestion, or motivation exists to combine the references in the manner suggested by the examiner. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 2 or any other claim in this grouping of claims.

III.C.   Claims 4 and 16

The examiner rejected claims 4 and 16 as obvious over *AAPA* and *Wood* in further view of *Harringon*, Single-Use Passwords for Smart Paper Interfaces, U.S. Patent 6,480,958 (November 12, 2002) (hereinafter "*Harringon*"). This rejection is respectfully traversed. The examiner states that:

> Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Wood et al. (PS Patent 6,915,363), and further in view of Harringon (US Patent 6,480,958).
>
> As per claims 4 and 16, AAPA and Wood teach all the limitations of claims 3 and 15 as discussed above.
>
> AAPA and Wood does not expressly teach the storage network system and method, further comprising wherein the storage controller has a hard-coded password for authenticating an operator of the host device before receiving the at least one serial port parameter values from the host device.
>
> Harringon teaches a system and a method comprising a user entering the information comprising a secret password and a personal user name or identification number and verifying the entered information is correct before granting access to the user (col. 1, ll. 30-45).
>
> It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Harrington's entering and verification of the secret password and the personal user name or identification number into AAPA and Wood's storage network system and method. The resulting combination of the references teaches the storage network system and method further comprising the user/operator to enter the information comprising the secret password and the personal user name or identification number and verifying the entered information is correct before enabling the receiving of the start command send by the user/operator.
>
> Therefore, it would have been obvious to combine Harringon with AAPA and Wood for the benefit of providing security measures to ensure the receiving of the serial port parameter settings only from authorized user/operator or (Harringon, col. 1, ll. 30-33).

Office Action of June 21, 2006, pp. 8-9.

The examiner has failed to state a *prima facie* obviousness rejection against claims 4 and 16 because the rejection relies on the combination of *AAPA* and *Wood*. As established with regards to the response to the rejection of claim 1, the examiner cannot state a *prima facie* obviousness rejection against claim 4 and 16. Furthermore, *Harringon* does not teach or suggest the features of claim 1.

Therefore, the examiner can not state a *prima facie* obviousness rejection against claims 4 and 16, at least by virtue of their dependence on claims 1 and 13, respectively.

III.C.1. The Proposed Combination of References Does Not Teach All of the Features of the Claims

Additionally, the examiner has failed to state a *prima facie* obviousness rejection because the proposed combination of references, when considered as a whole, does not teach or suggest all of the features of claims 4 and 16. Claim 4 is as follows:

> 4.   The method of claim 3, wherein receiving at least one serial port parameter value includes:
> authenticating an operator of the host device before receiving the at least one serial port parameter values from the host device.

The proposed combination, when considered as a whole, does not teach or suggest the claimed feature of "authenticating an operator of the host device *before receiving the at least one serial port parameter values from the host device.*" As shown above, *AAPA* and *Wood* do not teach or suggest initializing a serial port, as claimed. Additionally, *Harringon* is devoid of disclosure in this regard.

Harringon teaches a security control system for remote computers. *Harringon* does not teaches or suggests initializing a serial port before receiving the at least one serial port parameter values from the host device. The examiner fails to indicate otherwise. Instead, the examiner only refers to disclosure in *Harringon* that is directed to authentication information for a user. In light of the fact that *Harringon* is devoid of specific disclosure regarding initializing serial ports, and in further light of the fact that *AAPA* and *Wood* are also devoid of this disclosure, none of the references teach or suggest all of the features of claim 4. Therefore, the proposed combination of *AAPA*, *Wood*, and *Harringon*, when considered as a whole, does not teach or suggest the feature of "authenticating an operator of the host device *before receiving the at least one serial port parameter values from the host device,*" as recited in claim 4. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 4 or similar claim 16.

III.C.2 No Teaching, Suggestion, or Motivation Exists Because the References Address Different Problems

One of ordinary skill would not combine the references to achieve the invention of claim 2 because the references are directed towards different subject matter. It is necessary to consider the reality of the circumstances—in other words, common sense—in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992); *In re Wood*, 599 F.2d 1032, 1036, 202 U.S.P.Q. 171, 174 (CCPA 1979). In the case at hand, the cited references address different subject matter. Thus, no common sense reason exists to establish that one of ordinary skill would reasonably be expected to

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look to *Harringon* for a solution to the problems described in *Wood* and *AAPA*. Accordingly, no teaching, suggestion, or motivation exists to combine the references and the examiner has failed to state a *prima facie* obviousness rejection of claim 1.

As shown above, *AAPA* is directed to serial port initialization. On the other hand, *Wood* is directed to the problem of speeding up spin-up of disk drives. In further contrast, *Harringon* is directed to user authentication in the context of smart paper. For example, *Harringon* provides that:

> However, in systems that provide access to information, it is advantageous to implement security measures in order to limit access to only those individuals who are authorized. Often data is personal, private, and/or otherwise sensitive and it is desirable to not have it openly available. Moreover, where the remote computer or device is being instructed to perform tasks, only those individuals authorized to operate it are to be granted access. A common approach to establishing access rights is through the use of a secret password and personal user name or identification number. The password is a sequence of characters that the authorized user alone knows and enters into the computer along with their user name or identification number. The computer then checks the password against that assigned to the user to verify authorization. One problem with using this scheme in smart paper applications is that the password would be written down. This greatly jeopardizes the systems security by potentially revealing otherwise secret passwords to unauthorized individuals. As an alternative, the password may be entered via the telephone buttons or numeric keypad as part of establishing the fax link. However, this would involve the establishment of a special connection protocol in every fax machine that was to be used. Generally, it is more desirous to use arbitrary conventional fax machines. It is therefore advantageous to send the authorization code on the smart paper along with the instructions.

Harringon, col. 1, ll. 31-56.

Based on the plain disclosures of the references themselves, the references address completely distinct subject matter. Serial port initialization is completely distinct from the problem of speeding up spin-up of disk drives. In turn, both of these subjects are completely distinct from the problem of user authentication in the context of smart paper.

Because the references address completely distinct subject matter, one of ordinary skill would have no reason to combine or otherwise modify the references to achieve the invention of claim 4. Thus, no proper teaching, suggestion, or motivation exists to combine the references in the manner suggested by the examiner. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claim 4 or any other claim in this grouping of claims.

III.D.   Claims 6-8 and 18-20

The examiner rejected claims 6-8 and 18-20 as obvious over *AAPA* and *Wood* in further view of *Walter* et al., Baud Rate Detection in Serial Data Transmission, U.S. Patent 6,847,615 (January 25, 2005) (hereinafter "*Walter*"). This rejection is respectfully traversed. The examiner states that:

> Claims 6 -8 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA and Wood et al. (PS Patent 6,915,363), and further in view of Walter et al. (US Patent 6,847,615).
>
> As per claims 6 and 18, AAPA and Wood teach all the limitation of claim 1 and 13 as discussed above, where AAPA further teaches the storage network system and method, comprising:
> wherein the set of serial port parameters includes baud rate (AAPA, Specification, page 2, ll. 17-18); and
> wherein the serial port parameter including baud rate is invoked as the user utilizing a break key sequence (AAPA, Specification, page 2, l. 28 to page 3, l. 1).
> AAPA and Wood does not teach the storage network system and method, comprising wherein receiving at least one serial port parameter value includes the external device performing an adaptive baud rate negotiation between the storage controller and the external device.
>
> Walter teaches a system and a method for baud rate detection for serial data comprising the negotiating the baud rate of the transferring data by utilizing the function of setting a receiving device (storage device) to a correct baud rate for receiving data (col. 2, ll. 8-15), wherein the data received comprises of a predetermined data word, such as one of the character 'A' or 'a', and the next character in the serial data transmission may be 'T' or 't' (col. 2, ll. 49-52 and col. 6, ll. 43-49).
>
> It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Walter's function for setting the correct baud rate into AAPA and Wood's storage device. The resulting combination of the references teaches the storage network system and method further comprising the user utilizing the external device to send the predetermined data word comprising the break key sequence to enable the storage device to implement the function setting the correct baud rate for receiving data.
>
> Therefore, it would have been obvious to combine Walter with AAPA and Wood for the benefit of providing the automatic determination of baud rate for the serial data transmission (Walter, Abstract and col. 2, ll. 1-2).
>
> As per claims 7 and 19, AAPA, Wood and Walter each all the limitation of claims 6 and 18 as discussed above, where AAPA and Walter further teach the storage network system and method, comprising:
> wherein the external device performs an adaptive baud rate negotiation by sending a break key sequence from the external device to the storage controller (AAPA, Specification, page 2, l. 28 to page 3, l. 1 and Walter, col. 2, ll. 49-52),
> determining an amount of time between a start bit and a stop bit (Walter, col. 4, ll. 37-61 and col. 9, ll. 12-17), wherein the processor must determine the amount of time between the start bit and the stop bit in order to program the timer to generate a interrupt, and

obtaining a baud rate based on the amount of time (Walter, col. 9, ll. 18-45), wherein the baud rate is determined base on the interrupt generated by the timer and the processor's detection of the priority bit.

As per claims 8 and 10, AAPA, Wood and Walter teach all the limitation of claims 7 and 19 as discussed above, where Walter further teaches the storage network system and method, comprising wherein the external device obtains a baud rate based on the amount of time includes performing a look-up of the baud rate in a look-up table (Walter, col. 2, ll. 55-58 and col. 6, ll. 43-49)

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Walter et al. (US Patent 6,847,615).

Office Action dated June 21, 2006, pp. 8-11.

The examiner has failed to state a *prima facie* obviousness rejection against these claims because the rejection relies on the combination of *AAPA* and *Wood*. As established with regards to the response to the rejection of claim 1, the examiner cannot state a *prima facie* obviousness rejection against these claims. Furthermore, *Walter* does not teach or suggest the features of claim 1. Therefore, the examiner can not state a *prima facie* obviousness rejection against claims 6-8 and 18-20, at least by virtue of their dependence on claims 1 and 13, respectively.

Additionally, the examiner has failed to state a *prima facie* obviousness rejection because the proposed combination of references, when considered as a whole, does not teach or suggest all of the features of claims 6-8 and 18-20. For example, claim 6 is as follows:

> 6.   The method of claim 1, wherein the set of serial port parameters includes baud rate and wherein receiving at least one serial port parameter value includes performing an adaptive baud rate negotiation between the storage controller and an external device connected to the storage controller through the serial port.

The proposed combination, when considered as a whole, does not teach or suggest the claimed feature of "performing an *adaptive* baud rate negotiation between the storage controller and an external device connected to the storage controller through the serial port," as claimed. *AAPA* and *Wood* do not teach or suggest this claimed feature. Additionally, *Walter* is devoid of disclosure in this regard.

Walter does teach a method for determining and setting a baud rate of a serial data transmission. However, *Walter* teaches a method that is entirely distinct from the claimed feature of adaptive baud rate negotiation. Specifically, *Walter* teaches identifying the baud rate, checking to see if the identified baud rate is correct, setting a new baud rate if the identified baud rate is not correct, checking the new baud rate, and then iteratively setting a baud rates and checking baud rates until the correct baud rate is achieved. *Walter* describes the process as "autobauding." For example, *Walter* provides for:

> A method for automatically determining the baud rate of a serial data transmission comprises the steps of setting a receiving device to a first baud rate,

processing (65) a first data word received by said receiving device and possibly further information to determine said baud rate of said data transmission, possibly setting (68) said receiving device to a second baud rate in order to enable said receiving device to find the beginning of a subsequent data word in said serial data transmission, and possibly setting (74) said receiving device to said determined baud rate. A corresponding apparatus and a mobile telephone each employs this method. The invention provides an autobauding function which causes little expense in terms of hardware and processing time, and which will correctly synchronize with the serial data transmission even if the transmitted data words immediately follow each other.

Walter, Abstract.

In contrast, the invention of claim 6 requires "adaptive baud rate negotiation." This term is defined in the specification as follows:

> The present invention also provides an adaptive baud rate negotiation mechanism using the Universal Asynchronous Receiver Transmitter (UART) registers in the serial port. The adaptive baud rate negotiation is based on the return characters received from a break character from the serial console. The controller may have a UART chip on board that contains programmable baud rate generator that is capable of taking any clock input and dividing it by a divisor from 2 to 65,535. The output frequency of the baud rate generator is sixteen times the baud [divisor # = (frequency input) / (baud rate • 16)]. Two 8-bit latches store the divisor in a 16-bit binary format. The divisor latches must be loaded during initialization to ensure proper baud rate selection and operation of the baud generator. Upon loading either of the divisor latches, a 16-bit baud counter is immediately loaded.

> The adaptive baud rate negotiation mechanism sets a default baud rate, such as 9600 bps, during controller boot up and waits for a return character to be received on an external device connected to the serial port after sending a <BREAK> from the serial console. The time taken to transmit a bit depends on the baud rate set on the UART. In the time for transmitting a single bit using 9600 bps, two bits may be transmitted if 19,200 bps is used. Hence, starting an arbitrary timer as soon as the <BREAK> is transmitted and terminating the timer upon receiving a return character from the terminal can compute the time taken to receive the character on the console.

> The adaptive baud rate negotiation mechanism waits for a start bit (falling edge) on the serial input pin and then starts the timer. At every subsequent rising edge of the serial data, the timer value is captured and saved. When the timer expires, the last captured value will indicate the duration of the serial character from the start bit to the last zero-to-one transition.

Specification, p. 8, ll. 4-14.

Thus, "adaptive baud rate negotiation" uses time values and break characters in concert with the UART to establish baud rate negotiation. This technique is entirely distinct from the technique shown in *Walter*. The techniques are so different that no one of ordinary skill would consider *Walter's* technique of "autobauding" as teaching or suggesting the claimed technique of "adaptive baud rate negotiation." Accordingly, none of the references teach the claimed feature of "adaptive baud rate negotiation." Therefore, the proposed combination of *AAPA*, *Wood*, and *Walter*, when considered as a

whole, does not teach or suggest this claimed feature as recited in claim 4. Accordingly, the examiner has failed to state a *prima facie* obviousness rejection against claims 6 or 18.

Additionally, the combination of the references does not teach other features of claims 7, 8, 19, or 20. Therefore, the examiner has failed to state a *prima facie* obviousness rejection against these claims, as well.

III.E.   Claims 9 and 10

The examiner rejected claims 9 and 10 as obvious over *AAPA* in view of *Walter*. This rejection is respectfully traversed. The examiner states that:

> As per claim 9, AAPA teaches a method of performing an adaptive baud rate negotiation for serial port initialization in a storage controller, wherein the storage controller (disk/RAID controller) includes a serial port for connection to an external device (Specification, page 2, ll. 14-15), the method comprising sending a break key sequence from the external device to the storage controller AAPA, Specification, page 2, l. 28 to page 3, l. 1), wherein the user invoke the break key sequence to cycle through bald rate values for the serial port;

> AAPA does not teach the method comprising:
> determining an amount of time between a start bit and a stop bit; and
> obtaining a baud rate based on the amount of time.

> Walter teaches a system and a method for baud rate detection for serial data comprising the negotiating the baud rate of the transferring data by utilizing the function of setting a receiving device (storage device) to a correct baud rate for receiving data (col. 2, ll. 8-15), wherein the data received comprises of a predetermined data word, such as one of the character 'A' or 'a', and the next character in the serial data transmission may be 'T' or 't' (col. 2, ll. 49-52 and col. 6, ll. 43-49);

> the processor determining the amount of time between the start bit and the stop bit in order to program the timer to generated a interrupt (col. 4, ll. 37-61 and col. 9, ll. 12-17); and

> obtaining a baud rate based on the interrupt generated by the timer and the processor's detection of the priority bit (col. 9, ll. 18-45).

> It would have been obvious to one of ordinary skill in this art, at the time of invention was made to include Walter's function for setting the correct baud rate into AAPA's storage device. The resulting combination of the references teaches the method further comprising the user utilizing the external device to send the predetermined data word comprising the break key sequence to enable the storage device to implement the function to set the correct baud rate for receiving data base on the interrupt generated by the timer and the processor's detection of the priority bit, wherein the processor will determine the amount of time between the start bit and the stop bit in order to program when the timer would generate the interrupt.

> Therefore, it would have been obvious to combine Walter with AAPA for the benefit of providing the automatic determination of baud rate for the serial data transmission (Walter, Abstract and col. 2, ll. 1-2).

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As per claim 10, AAPA and Walter teach all the limitation of claim 9 as discussed above, where Walter further teaches the method comprising wherein obtaining a baud rate based on the amount of time includes performing a look-up of the baud rate in a look-up table (Walter, col. 2, ll. 55-58 and col. 6, ll. 43-49).

Office Action dated June 21, 2006, pp. 11-13.

Claim 9 as amended is as follows:

> 9.   A method of performing an adaptive baud rate negotiation for serial port initialization in a storage controller, wherein the storage controller includes a serial port for connection to an external device, the method comprising:
> sending a break key sequence from the external device to the storage controller;
> determining an amount of time between a start bit and a stop bit;
> obtaining a first baud rate based on the amount of time; and
> setting a second baud rate for the serial port based on the first baud rate.

The examiner has failed to state a *prima facie* obviousness rejection because no teaching, suggestion, or motivation exists to combine the references. No teaching, suggestion, or motivation exists to combine the references because *AAPA* directly teaches away from the claimed invention. Although the examiner cites *AAPA* as teaching the claimed "sending a break key sequence" step, the examiner obviously ignores the following text which directly states that techniques that use a break key sequence are onerous. Specifically, the specification provides that:

> Serial port initialization on RAID controllers poses many problems as port parameters are typically set by invoking a <BREAK> key sequence on the serial console. By repeating the break sequence, a user may cycle through baud rate values for the serial port. *However, the user may not know how many times the break sequence was invoked and, thus, may not know what baud rate is set. The user may also miss the intended value and must restart the break key sequence. This solution for setting serial port parameters is non-intuitive and potentially frustrating.*

Specification, p. 2, l. 28 through p. 3, l. 5 (emphasis to show portions ignored by the examiner).

The specification provides that the normal solution involving sending break key sequences is non-intuitive and potentially frustrating. In addition, the user may not know how many times the break sequence was invoked and miss the intended value. Thus, one of ordinary skill would *specifically avoid* combining sending break key sequences with the "determining and amount of time" step and the "obtaining a first baud rate" step, as claimed, even if *Walter* teaches these steps. In further light that *Walter* is entirely devoid of disclosure regarding the claimed "sending a break key sequence" step, one of ordinary skill considering *AAPA* would have every reason to avoid combining *Walter* with *AAPA* to achieve the invention of claim 9.

Because one of ordinary skill would actively avoid combining *Walter* with *AAPA* to achieve claim 9, *AAPA* teaches against the claimed invention. For this reason, no teaching, suggestion, or motivation exists to combine the references. The examiner's stated teaching, suggestion, or

motivation must therefore be based not on *Walter*, but instead on the examiner's personal opinion formed from Applicants' disclosure. Because no teaching, suggestion, or motivation exists to combine the references, the examiner has failed to state a *prima facie* obviousness rejection against claims 9 and 10.

III.F.   Claims 11 and 12

The examiner rejected claims 11 and 12 as obvious over *AAPA* and *Walter* in further view of *Hollingsworth*, Announcements, CMSC 417-S97 (lect 13) (1997) (hereinafter "*Hollingsworth*"). This rejection is respectfully traversed.

The examiner has failed to state a *prima facie* obviousness rejection against claims 11 and 12 because the rejection relies on the combination of *AAPA* and *Walter*. As established with regards to the response to the rejection of claim 9, the examiner cannot state a *prima facie* obviousness rejection against claim 9 because no motivation exists to combine the references. Specifically, *AAPA* directly teaches away from the claimed invention. Furthermore, *Hollingsworth* does not provide any teaching, suggestion, or motivation that would motivate one of ordinary skill to combine the references over the explicit teachings of *AAPA* to avoid combining the references to achieve the claimed invention. Therefore, the examiner can not state a *prima facie* obviousness rejection against claims 11 and 12, at least by virtue of their dependence on claim 9.

III.G.   Use of Impermissible Hindsight Throughout All Obviousness Rejections

The examiner failed to state a *prima facie* obviousness rejection because the examiner used impermissible hindsight when fashioning the rejections. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Hedges*, 228 U.S.P.Q. 685, 687 (Fed. Cir. 1986). Additionally, Personal opinion cannot be substituted for what the prior art teaches because a *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993).

The plethora of rejections based on no less than references shows examiner must have simply picked and chosen elements from the prior art and combined those elements using Applicant's specification as a template to achieve the claimed inventions. The examiner was unable to find just one or two references, or even three references, to teach all of the features of the claims. Instead, the examiner had to find no less than six references and issue six different rejections in order to reject all the claims. In further view of the fact that *Wood* does not teach all of the features as asserted by the examiner

and in further view that the examiner ignored a very important part of Applicant's specification when forming the rejection of claim 9, the examiner must have considered only so much of the references as supported the examiner's position. The examiner's errors and the examiner's failure to consider all of the teachings of Applicants' admitted prior art also show that the examiner considered the individual components of the references to the exclusion of other parts of the references necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. Therefore, the only logical conclusion to draw is that the examiner picked and chose elements from the prior art and then combined them together using the specification as a template. This action constitutes impermissible hindsight under the standards of *In re Hedges* and *In re Bell*. Accordingly, the examiner failed to state *prima facie* obviousness rejections against any of the claims.
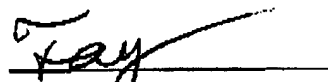
Additionally, the requirement that the examiner use a plethora of references shows that one of ordinary skill would be unlikely to achieve the claimed inventions. The examiner's proposed rejections would require one of ordinary skill to cobble together disparate references and then further modify the references to make up for the lack of disclosure in those references, as described above. Common sense indicates that doing so is beyond those of ordinary skill in the art. Thus, not only did the examiner use impermissible hindsight when fashioning the references, but also no motivation exists to combine the references to achieve the claimed inventions. Hence, again, the examiner failed to state *prima facie* obviousness rejections against any of the claims.

IV.   Conclusion

The subject application is patentable over the cited references and should now be in condition for allowance. The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

DATE: September 21, 2006

Respectfully submitted,

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